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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,561	09/22/2003	Vladimir Abramov	20030052.ORI	9970
25281	7590	06/14/2005	EXAMINER	
DICKE, BILLIG & CZAIA, P.L.L.C. FIFTH STREET TOWERS 100 SOUTH FIFTH STREET, SUITE 2250 MINNEAPOLIS, MN 55402			LEWIS, TISHA D	
		ART UNIT	PAPER NUMBER	
			3681	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/667,561	ABRAMOV, VLADIMIR
	Examiner TISHA D. LEWIS	Art Unit 3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-15 and 22-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2,4-15 and 25 is/are rejected.
- 7) Claim(s) 3,22-24,26 and 27 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____.	6) <input type="checkbox"/> Other: ____.

## **DETAILED ACTION**

The following is a response to the amendment received on March 4, 2005 which has been entered.

### ***Response to Amendment***

Claims 1-15 and 22-27 are pending in the application. Claims 16-21 have been cancelled and claims 22-27 are newly entered.

-The priority under 119(e) of provisional application number 60/412702 has been acknowledged due to applicant's amendment adding the priority request to the specification.

-The objection to the specification has been withdrawn due to applicant correcting the grammar error indicated in the office action of December 1, 2004.

-The objection to the claims 1, 3, 8, 16, 19 and 20 has been withdrawn due to applicant correcting typographical and grammar errors in claims 1, 3 and 8 and canceling claims 16, 19 and 20.

-The 112 2<sup>nd</sup> rejection of claims 2-21 has been withdrawn due to applicant correcting lack of antecedent basis for claims 2, 4 and 13, clarifying (by amendment) claim limitations in claims 2, 14 and 15 and canceling claims 16-20.

### ***Response to Arguments***

Applicant's arguments filed March 4, 2005 have been fully considered but they are not persuasive.

- Applicant's argument as to the Razzacki reference not having more than a single ratio is acknowledged: however, Razzacki does seem to suggest that more than

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one ratio is configured (i.e., low gear ratio, high gear ratio, ratio spread, etc.) to be used for creating a geometric sequence and using a common ratio to determine the sequence (i.e., K or r).

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Starting on page 13 of applicant's arguments, applicant clarifies the claim limitations, but doesn't clearly suggest what the difference is between the claim limitations and the Horsch and Herzlitzek references. The examiner acknowledges applicant's argument that the Horsch reference doesn't teach or suggest gears sets sized to have ratios varying by degrees of separation of a common ratio in a geometric sequence, but applicant should point out what in the Horsch reference provided this conclusion (i.e., as in arguments concerning Razzacki, point to specification lines, drawings, etc.).

### ***Claim Objections***

Claim 3 is objected to because of the following informalities:

-In line 2, "of" and "for" should be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being unpatentable by Razzacki ('666). Razzacki discloses a transmission having a plurality of shafts (Figure 2) with a gear forming a gearset between the shafts and being sized and varied by degrees in a common ratio in a geometric sequence wherein a degree of difference is 1 which is the same for each gearset.

Claims 1, 2, 4, 7-15 and 25 are rejected under 35 U.S.C. 102(b) as being unpatentable by Horsch ('280). As to claims 1 and 2, Horsch discloses a transmission having a plurality of shafts (input, output, S1, S2, C, etc.) with a gear forming a gearset between the shafts and being sized and varied by degrees in a common ratio in a geometric sequence wherein a degree of difference is 1 which is the same for each gearset.

As to claim 4, Horsch discloses an input to output ratio of 1 when direct driving between the input to output is selected.

As to claim 7, Horsch discloses a reverse pinion (23rev) engaging a shaft (reverse shaft) for providing one or more reverse speeds.

As to claims 8 and 11, Horsch discloses an output shaft having outward extending ends from the transmission for connecting to other objects which could be a differential.

As to claims 9 and 10, Horsch discloses frame members separating different sections between the gearsets.

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As to claim 12, Horsch discloses the gears having teeth on opposite sides wherein if the shafts were turned upside down, the teeth would still engage teeth on other shafts.

As to claim 13, Horsch discloses the shafts having clutches to connect gears to shafts which connects other shafts by meshing of the gears.

As to claims 14 and 15, Horsch discloses at least 5 shafts having at least 6 gearsets providing 27 forward and 9 reverse speeds wherein the gearsets can be combined into any set of gearsets as claimed by applicant since applicant does not limit how or which gearsets or sets of gearsets are connected to a particular shaft of the plurality of shafts.

As to claim 25, Horsch discloses a frame member having two units forming 3 shafts (two output shafts, shaft C) having the first unit with a common ratio of 1/6 and the second unit having a common ratio of 1/1 and a reverse section coupled to the power source to provide 6 reverse speeds.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horsch in view of Herlitzek ('519). Horsch discloses a transmission as described above, but does not disclose a join gear for joining two shafts.

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Herlitzek discloses a transmission having a longitudinal arrangement wherein a join gear (5) or plurality of join gears (dashed lines) mounted on a shaft (via 2, modification shaft), are used to join gears between two shafts.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide join gears mounted on a shaft in the transmission of Horsch in view of Herlitzek to provide a longitudinal arrangement or reduce the width of the transmission and still provide the ratios between multiple shafts.

#### ***Allowable Subject Matter***

Claims 3, 22-24, 26 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### **FACSIMILE TRANSMISSION**

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is **(703) 872-9326 before final and 703-872-9327 after final**. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to  
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(Date)  
Typed or printed name of person signing this certificate:

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(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Razzacki ('131) and Romi ('529) is possible 102(b) to claims 1, 2, 4-13 and 15.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TISHA D. LEWIS whose telephone number is 571-272-7093. The examiner can normally be reached on M-Thur 6 AM TO 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES A. MARMOR can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tdl  
June 9, 2005

*Tifra Lewis*  
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PRIMARY EXAMINER  
AU 3681 6/9/05